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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ROBERT BIEBER, DANIEL EVERS, DIETER HORST, GERHARD METZ, STEFAN SCHWARZER, and CLAUS SEISENBERGER[1]

Appeal 2016-001895
Application 13/148,915
Technology Center 2600

Before CAROLYN D. THOMAS, JOHN F. HORVATH, and MICHAEL M. BARRY, *Administrative Patent Judges*.

BARRY, *Administrative Patent Judge.*

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from a Final Rejection of claims 12–26, which are all the claims pending in this appeal. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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[1] Appellants identify the real party in interest as Siemens AG. App. Br. 2.

Introduction

Appellants' disclosure relates to methods and systems for determining distance, speed, and/or direction of movement of an RFID transponder. Spec. Title. Claim 21 is representative:

> 21. An arrangement for determining a position of a radio frequency identification (RFID) transponder, comprising:
>
> a radar module configured to emit a radar signal at a radar frequency and receive a radar signal reflected by the RFID transponder; and
>
> an evaluation device linked to the radar module and configured to determine the position of the RFID transponder using the received, reflected radar signal;
>
> *wherein the RFID transponder is configured to receive and reflect both the emitted radar signal and a power-supply carrier signal emitted by an RFID reading device at an RFID frequency.*

App. Br. 9, 11 (Claim App'x (disputed wherein clause emphasized)).

References and Rejections

Claims 12–16, 18–22, and 24–26 stand rejected under 35 U.S.C. § 103(a) as obvious over McBride (US 8,253,570 B1; Aug. 28, 2012) and Shafer (US 6,700,491 B2; Mar. 2, 2004). Final Act. 2.

Claims 17 and 23 stand rejected under 35 U.S.C. § 103(a) as obvious over McBride, Shafer, and Appellants' Admitted Prior Art (APA). Final Act. 7 (identifying the APA as ¶¶ 8–9 of US 2012/0050016 A1 (i.e., the Mar. 1, 2012 publication of Appellants' Specification)).

ISSUE

Based on Appellants' arguments (*see* App. Br. 3–7, Reply Br. 1–8), the issue before us is whether the combination of McBride and Shafer teach

the disputed wherein clause, and specifically whether Shafer teaches "reflecting a power-supply carrier signal," as required by claims 12 and 21.

ANALYSIS

We have considered Appellants' arguments, but do not find them persuasive of Examiner error. Instead, we agree with and adopt as our own the Examiner's findings and reasons as set forth in the Answer and in the Action from which this appeal was taken. *See* Final Act 2–8, Ans. 2–9. We provide the following explanation for emphasis.

In rejecting claim 21, the Examiner finds McBride, based on its embodiment for using an RFID transponder along with an RFID radar, teaches all elements of claim 21 except the requirement to reflect an RFID power-supply carrier signal. Final Act. 2–3 (citing McBride 1:12–47, 3:39–40, 4:1–36, Figs. 1–3). The Examiner finds Shafer teaches it was known for an RFID tag to reflect a power-supply carrier signal and that it would have been obvious to an ordinarily skilled artisan to combine the teachings of McBride and Shafer. *Id.* at 3 (citing Shafer 1:49–50, 2:15–22).

Appellants argue the Examiner errs because the claimed RFID transponder "must receive an emitted radar signal, and the transponder must receive a power-supply carrier signal. On the other hand, that same [transponder] is required to reflect the emitted radar signal, and reflect the power-supply carrier signal. There is nothing in *Shafer* with respect to these claimed features." *Id.* at 4 (emphasis omitted). Appellants contend "*Shafer* expressly teaches that the battery function and antenna function are decoupled (see, e.g., col. 3, lines 50–52). As a result of this decoupling, the antenna 9 in the RFID of *Shafer* cannot reflect the received power because it is prevented from doing so." *Id.* at 6.

The Examiner answers that it is the combination of McBride and Shafer that teaches the disputed limitations recited in the wherein clause. *See* Ans. 2–8. In doing so, the Examiner finds McBride's Figure 2 teaches an active RFID transponder with both RFID and radar circuitry (Ans. 2–3), and that "eliciting an identification code in the transponder's response signal to the reader's interrogation signal" was well known and is inherent in McBride. Ans. 3 (citing McBride 3:62–4:6). The Examiner also finds McBride teaches receiving a radar signal reflected by an RFID transponder for calculating distance. *Id.* (citing McBride 1:48–58, 4:11–15).

The Examiner further finds Shafer teaches "it has been known in the art that active tags may communicate with the RFID reader by specifically reflecting back power-supply carrier signals to the reader." Ans. 3 (citing Shafer 3:24–27, Figs. 3–6, 8). The Examiner also finds that in Shafer, "the backscattering[2]/reflected carrier signal is a power-supply carrier signal since power can be extracted." *Id.* at 3–4 (citing Shafer 2:15–22).

In reply, Appellants argue the meaning of power-supply carrier signal is "a signal having data (i.e., interrogation data MA) modulated on or onto that carrier signal," and contend Shafer's "radio frequency identification (RFID) electromagnetic field" does not meet this definition. Reply Br. 2–3. Appellants contend that Shafer's backscattering for RFID reading does not teach or suggest "specifically reflecting an RFID electromagnetic field that is received at an RFID chip. *Shafer* merely teaches that the RFID

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[2] *See, e.g.*, http://en.wikipedia.org/wiki/Backscatter (last accessed Jan. 24, 2017) ("In physics, backscatter (or backscattering) is the reflection of waves, particles, or signals back to the direction from which they came.").

electromagnetic field is received at the RFID chip and used to power that chip." Reply Br. 6.

We find Appellants' arguments unpersuasive. The Specification does not define or otherwise limit the meaning of "power-supply carrier signal" as proffered by Appellants. Rather, it discusses "a power-supply carrier signal, i.e., a carrier, onto which data possibly requiring to be transmitted to the transponder is modulated." Spec. 2. In other words, a power-supply carrier signal, according to Appellants' Specification, is a signal *onto which* data may or may not be modulated. Regardless, Shafer discloses that the signal received at its antenna (that may or may not be used for battery charging) also allows for data transfer "*to* and from" the RFID chip (*see* Shafer 3:63–4:1) (emphasis added). An ordinarily skilled artisan would understand this to mean data can be modulated onto Shafer's incoming power-supply carrier signal for delivery *to* the RFID chip. Such an artisan would also understand Shafer's disclosure of RFID backscattering when the power available from the incoming RF carrier signal exceeds the power available from the batteries constitutes reflecting the incoming power-supply carrier signal. *See id.* at 2:15–21, 3:25–27, 4:6–10.

Appellants also argue independent claim 12 "is drawn to a method that is implemented by the apparatus of independent claim 21" and stands patentable on the same basis (App. Br. 7). In addition to finding this argument unpersuasive for the same reasons discussed above for claim 21, we note there is nothing in the body of claim 12 that recites or requires reflecting an RFID power-supply carrier signal. While claim 12's preamble recites an RFID transponder reflecting the RFID power-supply carrier signal, this is unnecessary for understanding the limitations recited in the

claim body, which is directed to a method performed by an RFID reading device for locating the RFID transponder. Accordingly, the preamble of claim 12 is not a limitation on the claim. *See Catalina Marketing Int'l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002) (citing *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305 (Fed. Cir. 1999)).

Appellants further argue the Examiner errs in rejecting dependent claims 17 and 23 because Appellants' APA "fails to provide what *McBride* and *Shafer* lack" and "are therefore patentable based on their respective dependencies from independent claims 12 and 21." App. Br. 7. We find this unpersuasive because we do not find the combination of McBride and Shafer to be deficient for the reasons discussed above for claims 12 and 21.

Appellants make no substantive arguments for the patentability of claims 13–16, 18–20, 22, and 24–26 separate from the arguments for claims 12 and 21. *See* App. Br. 7, 1–6.

DECISION

For the above reasons, we affirm the rejection of claims 12–26. No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED